

Environmental Impact Analysis Process

Environmental Assessment for Replacement Medical Clinic 61st Medical Squadron Los Angeles Air Force Base

December 1999



DEPARTMENT OF THE AIR FORCE
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FINDING OF NO SIGNIFICANT IMPACT (FONSI)
NEW MEDICAL CLINIC
LOS ANGELES AIR FORCE BASE

Pursuant to the National Environmental Policy Act (NEPA), the President's Council of Environmental Quality (CEQ) regulations implementing the Act (40 Code of Federal Regulations 1500-1508), and Air Force Instruction (AFI) 32-7061, which implements these regulations through the Environmental Impact Analysis Process (EIAP), and other applicable federal and local regulations, the Air Force Medical Service, and Space and Missile Systems Center, Headquarters Air Force Materiel Command (HQ/AFMC) have conducted an assessment of the potential environmental consequences of the new Medical Clinic. The No Action Alternative was also considered. This Finding of No Significant Impact (FONSI) summarizes the results of the evaluation.

Proposed Action and Alternatives: The Environmental Assessment (EA) for the new Medical Clinic at Los Angeles Air Force Base (AFB) assessed the potential environmental impacts related to construction and operation of the new facility. The new Medical Clinic is designed to provide primary care, aeromedical services, ancillary services, dental, mental health, patient services and command/administrative functions. This clinic will be a 48,000-square-foot facility that could serve an anticipated 8,100 enrollees. It could provide an estimated 8,100 prescriptions per month. The facility will be constructed on a 5-acre site currently used for the existing facility. Its phased construction plan will enable the existing facility to remain fully operational until the new clinic is completed.

Phase I involves demolition of three tennis courts and two buildings, then construction of the new clinic. Phase II involves demolition of the existing facility and construction of a new parking area.

The No Action Alternative is to not construct a new Medical Clinic at Los Angeles AFB. This would result in DoD continuing to utilize the existing facilities, which were not intended for the provision of health care. Facility age and lack of space will continue to be major concerns, as the main clinic is undersized by 22 percent. Further, administrative functions would continue to be located in two buildings that do not meet fire and building codes.

Anticipated Environmental Effects: The EA evaluated the potential environmental impacts of constructing and operating a new Medical Clinic. The functions of the new clinic will be the same as with the existing facility that are considered part of the baseline environmental condition at Los Angeles AFB and do not require additional environmental analysis.

Construction and operation of the new Medical Clinic will not result in any significant environmental impact, as these activities will occur in the same location as existing facilities.

The EA determined the new Medical Clinic will have no impact on environmental resources. The EA also determined that mitigation measures for soils, air quality, transportation and traffic, and waste management will be required. With implementation of these mitigation measures, related impacts will not be significant.

Mitigation: Mitigation will be required for issues associated with air quality, waste management and soils.

Conclusion: Following a review of the attached EA, which is hereby incorporated by reference, it is concluded that construction and operation of the new Medical Clinic at Los Angeles AFB will not result in significant environmental impacts, and an Environmental Impact Statement is not required. This document, and the supporting EA, fulfill the requirements of NEPA, CEQ regulations, and AFI 32-7061.

Approved:



DAVID E. PRICE, Colonel, USAF
Commander, 61st Air Base Group
Chairperson, Base Environmental Protection Committee



Date

**ENVIRONMENTAL ASSESSMENT
FOR REPLACEMENT
MEDICAL CLINIC
LOS ANGELES AIR FORCE BASE, CALIFORNIA**

Prepared for

**Department of the Air Force
Air Force Medical Service**

Prepared by

TRC

Irvine, California

Project No. 99-269

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TRC
21 Technology Drive
Irvine, California 92618
Telephone (949) 727-9336
Facsimile (949) 727-7399

TABLE OF CONTENTS

	<u>PAGE NO.</u>
LIST OF TABLES/ LIST OF FIGURES	iii
1.0 PURPOSE AND NEED FOR ACTION	1
1.1 Background	1
1.2 Purpose and Need	1
1.3 Decision to be Made	2
1.4 Purpose of the Environmental Assessment	2
1.5 Issues	3
1.6 Scope of Environmental Assessment	3
1.7 Organization of the Environmental Assessment	4
2.0 DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES (DOPAA)	8
2.1 Proposed Action	8
2.2 Alternatives to the Proposed Action	9
2.3 Mitigation Measures	10
3.0 AFFECTED ENVIRONMENT	12
3.1 Introduction	12
3.2 Geology and Soils	13
3.2.1 Geology and Seismicity	13
3.2.2 Soils	14
3.3 Water Resources	15
3.3.1 Ground Water	15
3.3.2 Surface Water	16
3.4 Biological Resources	16
3.5 Climate and Air Quality	16
3.6 Noise	17
3.7 Traffic and Transportation	17
3.8 Waste Management and Disposal	19
3.9 Socioeconomics	19
3.10 Cultural Resources	20
3.11 Infrastructure	20

TABLE OF CONTENTS

(Continued)

	<u>PAGE NO.</u>
4.0 ENVIRONMENTAL CONSEQUENCES AND CUMULATIVE IMPACTS	23
4.1 Introduction	23
4.2 Geology and Soils	23
4.3 Water Resources	24
4.4 Biological Resources	24
4.5 Climate and Air Quality	25
4.6 Noise	27
4.7 Traffic and Transportation	27
4.8 Waste Management and Disposal	28
4.9 Socioeconomics	29
4.10 Cultural Resources	30
4.11 Infrastructure	30
4.12 No-Action Alternative	30
5.0 REGULATORY REVIEW AND PERMIT REQUIREMENTS	31
6.0 PERSONS AND ORGANIZATIONS CONSULTED	32
7.0 REFERENCES AND SOURCES OF INFORMATION	33
8.0 LIST OF PREPARERS	35
APPENDIX A: LOS ANGELES AIR FORCE BASE DEMOLITION AND CONSTRUCTION AIR EMISSIONS	

LIST OF TABLES

<u>TABLE NO.</u>	<u>TITLE</u>	<u>PAGE NO.</u>
1	Peak Traffic in Vicinity of Los Angeles AFB	18
2	Construction Emissions Summary: New Medical Clinic, Los Angeles AFB	26

LIST OF FIGURES

<u>FIGURE NO.</u>	<u>TITLE</u>	<u>PAGE NO.</u>
1	Regional Location Map	5
2	Site Vicinity Map	6
3	Site Plan: Proposed Action	7
4	Generalized Geologic Cross Section	21
5	Generalized Ground Water Flow Direction in Vicinity of Los Angeles AFB	22

1.0 PURPOSE AND NEED FOR ACTION

1.1 BACKGROUND

Los Angeles Air Force Base (Los Angeles AFB) is situated on approximately 95 acres in the City of El Segundo, within the greater metropolitan area of Los Angeles, California (see Figure 1). The base consists of two parcels of land, Areas A and B, located at the intersection of El Segundo and Aviation Boulevards, west of Interstate 405 (I-405). Area A is bordered by Aviation Boulevard on the west, El Segundo Boulevard on the north, I-405 on the east and a Pacific Electric Railway right-of-way on the south. Area B is bordered by Douglas Street on the west, El Segundo Boulevard on the south, Aviation Boulevard on the east and Northrop Aircraft Division on the north (see Figure 2). Area A encompasses 41.45 acres, and Area B encompasses 53.7 acres.

Los Angeles AFB is located near Los Angeles International Airport and the South Bay area of West Los Angeles. Its mission is to provide integrated, affordable systems for the control and exploitation of air and space. Locally, Los Angeles AFB consists of the Space and Missile Systems Center (SMC), 61st Air Base Group, and numerous Operating Locations and Detachments.

The 61st Medical Squadron (61 MDS) is a Primary Care Manager (PCM) that provides outpatient primary care for active duty military members, their dependents and retired military personnel. Outpatient medical care is provided at the existing 61 MDS facility, which is a multi-building campus on Area B. The 61 MDS is one of only two Department of Defense (DoD) non-inpatient medical facilities within United States Air Force (USAF) Region 9. The other is the clinic at Edwards AFB, located approximately 100 miles north of Los Angeles AFB.

1.2 PURPOSE AND NEED

Over the past several years, the DoD healthcare position in the greater Los Angeles basin has changed dramatically. With the closure of March AFB, Long Beach Naval Station and El Toro Marine Corps Air Station, an area once served by various military healthcare organizations is now covered entirely by the 61st Medical Squadron (61st Medical Squadron, 1999).

The main clinic building (Building 200) was constructed in 1959 as an aircraft engine test facility. In the early 1970s it was converted into an administration building and further converted into a medical treatment facility in the mid-1970s. Facility age and lack of space

continue to be major concerns with the main clinic, estimated to be undersized by 22 percent (61st Medical Squadron, 1999).

In 1987/1988, an existing onsite building (Building 201) was obtained to address some space deficiencies. Administrative functions were moved out of the clinic and into this building (see Figure 3). Currently, the two buildings do not meet current fire and building codes. Existing deficiencies include an antiquated electrical system, lack of adequate structural bracing, a leaking roof and the presence of asbestos (U.S. Air Force, 1998a).

In the fall of 1994, a separate, 2,500-square-foot modular building (Building 202) was installed adjacent to the clinic to house the pharmacy and patient administration functions (see Figure 3). Even with the additional space from this building, clinic space is inadequate (U.S. Air Force, 1998a).

With closure of March AFB and the Long Beach Naval Shipyard, the Los Angeles AFB clinic is the only military treatment facility in the greater Los Angeles area. Workload has increased, as active duty personnel and their families in the area now rely on the Los Angeles AFB clinic for primary medical and dental care (U.S. Air Force, 1998a). Retirees, survivors and their families comprise 65 percent of the beneficiary population.

1.3 DECISION TO BE MADE

The decision to be made regarding the proposed construction of the new medical clinic at the Los Angeles AFB is whether to:

- Proceed with demolition of the existing facility and several surrounding buildings, plus construction of the new building.
- Take no action (i.e., No Action Alternative) and continue to rely upon the existing medical facility to serve the needs of active duty personnel and their families, plus retirees and survivors in the Los Angeles area.

1.4 PURPOSE OF THE ENVIRONMENTAL ASSESSMENT

The purpose of this Environmental Assessment (EA) is to provide information to USAF decision makers regarding potential environmental consequences of the Proposed Action and alternatives, including the No Action Alternative. The information included in this EA will be considered, along with other technical and mission needs information regarding the new medical clinic, in making decisions regarding the Proposed Action.

1.5 ISSUES

This EA analyzes potential environmental issues associated with construction and operation of a new medical clinic at Los Angeles AFB. Through the evaluation of environmental issues, the following specific potential issues were identified:

- Soils
- Air Quality
- Traffic and Transportation
- Waste Management

1.6 SCOPE OF ENVIRONMENTAL ASSESSMENT

This EA is part of the USAF Environmental Impact Analysis Process (EIAP) for the proposed new medical clinic at Los Angeles AFB. The requirements for the EIAP are included in Air Force Instruction (AFI) 32-7061, *Environmental Impact Analysis Process*, which implements the National Environmental Policy Act (NEPA) and the President's Council on Environmental Quality (CEQ) regulations for complying with NEPA. Additional EIAP requirements are included in Air Force Policy Directive 32-70, *Environmental Quality*.

This EA evaluates the potential environmental consequences of the full range of activities associated with the Proposed Action and the No Action Alternative. In accordance with AFI 32-7061, NEPA and CEQ regulations, this EA:

- Describes the existing baseline environmental conditions as related to the Proposed Action.
- Identifies and analyzes the potential environmental consequences of the Proposed Action, and the potential cumulative environmental impacts of the Proposed Action and other projects.
- Identifies mitigation measures, as appropriate, to eliminate, limit or reduce the potential environmental impacts associated with the Proposed Action and No Action Alternative.
- Identifies applicable environmental permits, if any, that may be required for the Proposed Action.

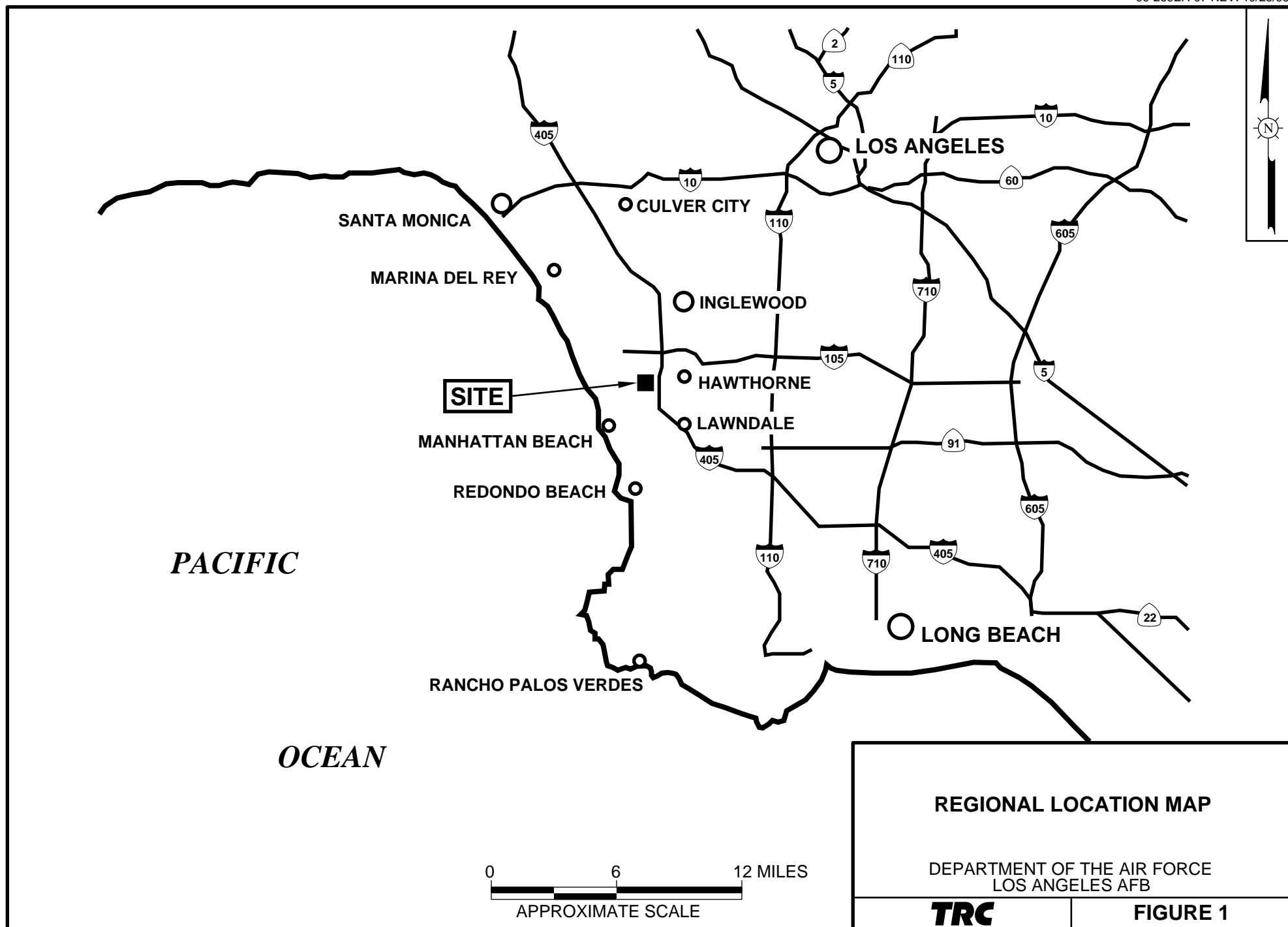
Applicable environmental data were collected and analyzed to document potential environmental consequences of the Proposed Action and No Action Alternative. This data included the Request for Environmental Analysis (Air Force Form 813), Management Action Plan for Los Angeles AFB, and the 61st Medical Squadron's Mission Support Plan. Other sources of information are provided in Chapter 7.0 of the EA. The USAF Form 813 determined that the program did not qualify for a Categorical Exclusion (CATEX) and that additional environmental analysis was required.

In accordance with NEPA and CEQ regulations, the USAF is required to determine the environmental impacts of its Proposed Action and its alternatives. If, upon review of this EA and other technical information regarding the new medical clinic, the USAF decision makers approve the findings and conclusion of this EA that the potential environmental impacts are not significant, then the USAF decision makers will approve a Finding of No Significant Impact (FONSI).

1.7 ORGANIZATION OF THE ENVIRONMENTAL ASSESSMENT

The remainder of this EA is organized in the following chapter format:

- **Chapter 2.0:** Description of the Proposed Action and Alternatives (DOPAA)
- **Chapter 3.0:** Affected Environment
- **Chapter 4.0:** Environmental Consequences and Cumulative Impacts
- **Chapter 5.0:** Regulatory Review and Permit Requirements
- **Chapter 6.0:** Persons and Organizations Consulted
- **Chapter 7.0:** References
- **Chapter 8.0:** List of Preparers

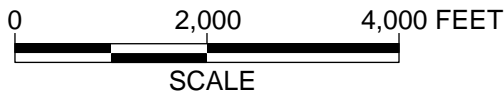
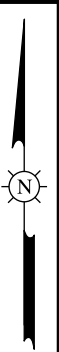
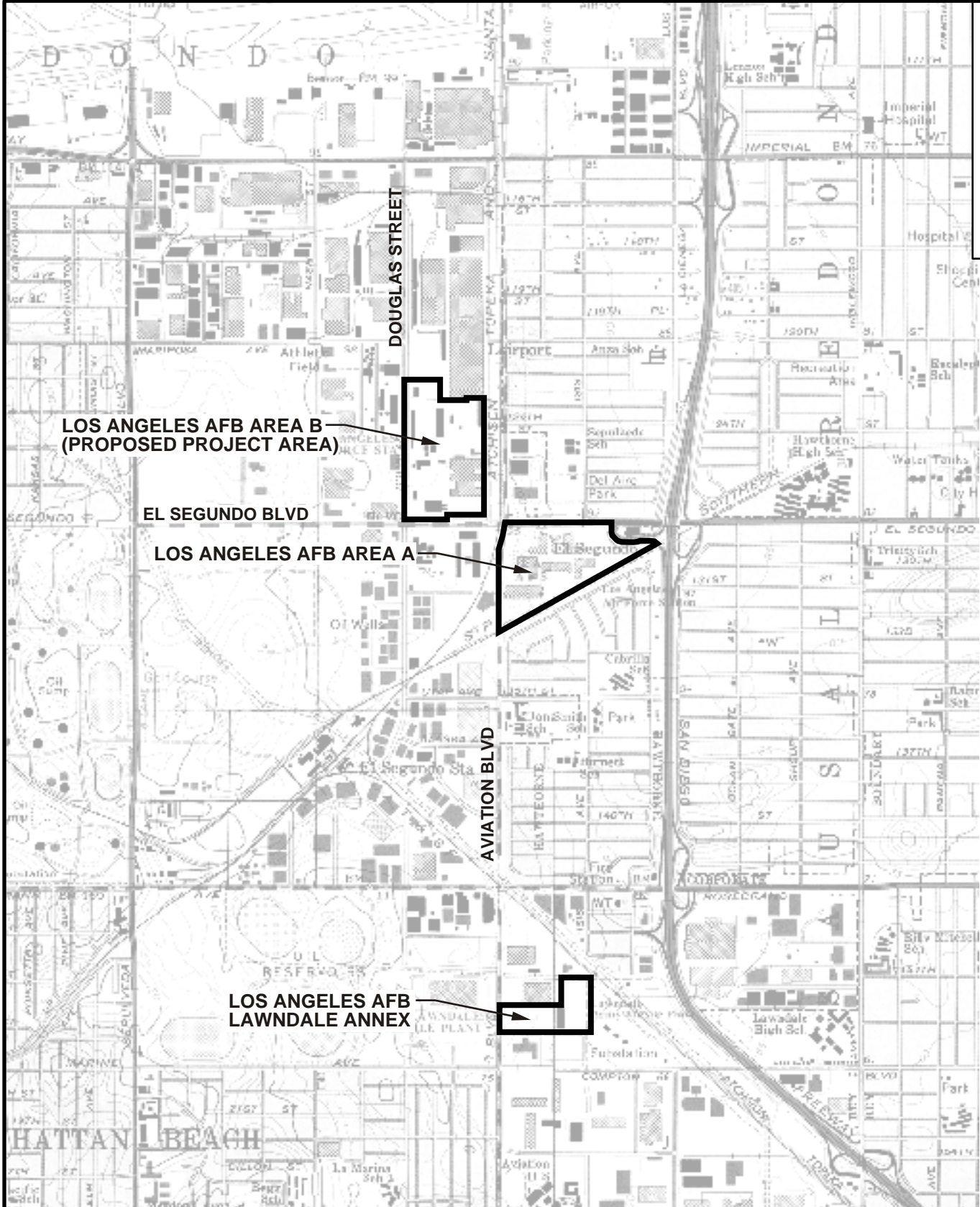


REGIONAL LOCATION MAP

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LOS ANGELES AFB

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FIGURE 1



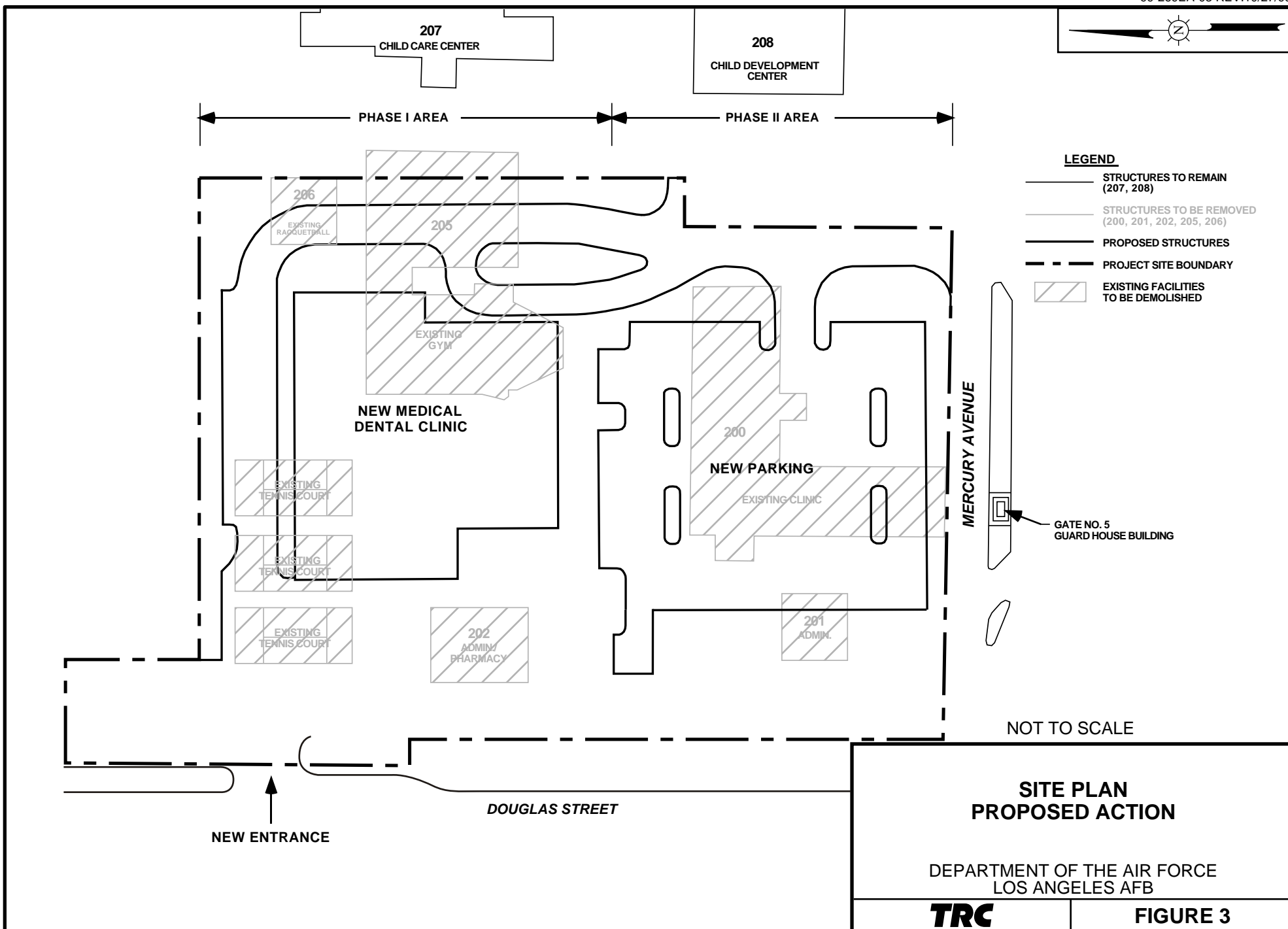
REFERENCE: USGS 7.5 MINUTE TOPOGRAPHIC MAPS OF INGLEWOOD AND VENICE, CA. DATED 1981.

SITE VICINITY MAP

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LOS ANGELES AFB

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FIGURE 2



2.0 DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES (DOPAA)

2.1 PROPOSED ACTION

The Proposed Action involves construction of a new medical clinic to meet existing and estimated future needs at Los Angeles AFB, plus the needs of dependents and retired military personnel in the greater Los Angeles area. This includes demolition of existing buildings at the site and construction of new parking to support the new clinic. This plan supports the Los Angeles AFB 2020 Plan and represents the best use of available land on base and best supports the ongoing mission by providing immediate access to medical facilities for military personnel at Los Angeles AFB. Since this is a replacement of existing facilities with similar usage, and the existing area is previously disturbed land, the Proposed Action is expected to result in minimal environmental impacts (U.S. Air Force, 1998b).

The Proposed Action is to construct a new modern medical clinic and parking to replace the existing facility. The new clinic will be a 48,000-square-foot, state-of-the-art "clinic of the future." The building exterior walls will be clad with a composite with metal panel system, and the roof will be covered with single-ply metal roof systems. A new access driveway on Douglas Street also will be provided. Work includes the required utility, communication, and building systems constructed to applicable building codes to make a complete and usable facility.

The new clinic facility will contain Primary Care, Aeromedical Services, Ancillary Services, Dental, Mental Health, Patient Services and Command/Administrative functions. The Proposed Action includes construction of a maximum of 120 parking spaces and site landscaping. The facility shall be designed in accordance with criteria prescribed in MIL-HDBK-1191, NFPA 101, NFPA 99 and the Uniform Federal Accessibility Guidelines (U.S. Air Force, 1998a).

The proposed medical clinic will be constructed on an approximately 5-acre site that is currently occupied by five buildings, parking lots and tennis courts (see Figure 3). Three of the five buildings are used for the existing medical clinic (medical/administrative offices/pharmacy). The remaining buildings consist of a gymnasium and a racquetball court (Law Crandall, 1998).

Construction and interior finishing are expected to take 3 years, beginning in March 2000 and scheduled for completion in March 2003 (U.S. Air Force, 1998a). The project will be constructed in two phases, as follows:

- Phase I
 - Demolition of the old gym and indoor racquetball court (Buildings 205 and 206), and the three tennis courts.
 - Construction of the new medical facility.
- Phase II:
 - Demolition of existing clinic and support facilities (Buildings 200, 201 and 202).
 - Construction of parking area.

Current activities at the existing clinic will continue uninterrupted until the new facility is completed. At that time, personnel and equipment will be moved to the new building, and demolition of the existing clinic will begin. The new facility will be open from 0700 until 1630, Monday through Friday, the same hours and days as the existing facility.

2.2 ALTERNATIVES TO THE PROPOSED ACTION

The following options were identified as potential alternatives to the proposed action:

- Leasing
- Renovation
- New Building Off-Base
- No Action

Leasing. Under this alternative, a suitable facility that is not located at Los Angeles AFB would be leased and utilized for a medical clinic. This alternative would result in increased travel time for users, with attendant costs and time away from their assigned duties.

This alternative was rejected due to continuing lease costs and factors associated with relocation of facilities away from Los Angeles AFB. This confirmation of factors results in the alternative not being cost-effective.

Renovation. This alternative would involve renovating and constructing an addition to the existing clinic, Building 200. The addition would be required to provide for increases in use and the number of patients being served. The costs of this alternative would be high, due to seismic requirements, asbestos abatement and major changes to the structure itself. The end result would be an expensive, old, renovated building.

This alternative was rejected because it would not be cost-effective.

New Building Off-Base. Under this alternative, a new medical clinic building would be constructed, but not located on Los Angeles AFB. Construction costs for this building are estimated to be the same as constructing the same building on Los Angeles AFB. However, the overall costs of this alternative would reflect high land costs in the immediate area. This alternative also would involve increased travel time for users, with attendant costs and time away from their assigned duties.

This alternative was rejected because it would not be cost-effective.

The USAF expressly eliminates alternatives from detailed analysis, based on reasonable selection standards. As a result, the three alternatives described above were eliminated from further consideration.

No Action. Under this alternative, medical and dental care would continue to be provided in the existing facility, which was neither designed nor intended for the provision of health care (U.S. Air Force, 1998a). This was determined to be the only reasonable alternative to the proposed action. Further discussion of the No Action Alternative is provided in Section 4.2.

2.3 MITIGATION MEASURES

To assure impacts are below a level of significance, the following mitigation measures will be implemented:

- Soils
 - Potentially contaminated soils will be transported by a licensed hauler to an approved disposal or recycling facility.
 - Contractor will develop and implement a site-specific Workplan/Health and Safety Plan.
- Air Quality
 - Contractors will adhere to good construction practices, including using a water truck for dust control.
 - Construction deliveries will be scheduled for off-peak hours.
 - Transport of demolition debris will be scheduled for off-peak hours.
- Traffic and Transportation
 - Construction deliveries will be scheduled for off-peak hours.
 - Transport of demolition debris will be scheduled for off-peak hours.
- Waste Management and Disposal
 - Contractors will conduct an asbestos survey of facilities to be demolished.

- Contractors will develop a project-specific asbestos demolition and abatement program.
- Contractors will develop a project-specific, lead-based paint demolition and abatement program.
- Abatement and disposal of asbestos and lead-based paint-containing materials will be completed in compliance with federal, state and local regulations.
- Licensed haulers will transport materials that contain lead-based paint and/or asbestos to permitted disposal sites.

3.0 AFFECTED ENVIRONMENT

3.1 INTRODUCTION

Los Angeles AFB consists of three parcels of land (Area A, Area B) situated in a developed area of the Los Angeles basin that is dominated by aerospace industries (see Figure 2). Due to its small size, the base is dominated by buildings, with open areas essentially used for vehicular access and parking. The natural soils exposed on the installation are limited and used for ornamental landscaping. The three parcels of land are relatively flat, with surface elevations ranging from 92 to 98 feet above mean sea level (MSL).

Los Angeles AFB is located in an area that has excess medical capacity. Currently, active duty military members assigned to the Base, and who reside within the 20-mile radius area of the main clinic, plus active duty dependents within 15 miles of the Fort MacArthur satellite clinic, must select 61 MDS as their PCM site if they are enrolled in TRICARE Prime. Other nearby DoD medical facilities that provide services potentially used by the military, their dependents and retirees include the West Los Angeles and Long Beach VA Medical Centers (VAMC). In addition, local providers who accept TRICARE Standard also may be used. Since many beneficiaries live in distant communities with problematic travel distances/times, they choose to select a civilian PCM from the wealth of medical resources in greater Los Angeles, even though they would most likely receive a cost savings by choosing TRICARE Prime at 61MDS (61st Medical Squadron, 1999).

The 61st Medical Squadron is an outpatient facility providing primary care and referral services. It offers primary care, pediatrics, women's health, flight medicine, optometry, mental health, pharmacy, radiology, laboratory and dental services. There is no emergency room or acute care clinic. The pharmacy fills 500 to 600 prescriptions per day, with 62 percent generated by civilian physician sources. This is approximately three to five times more than what would normally be expected from another facility of the same size (61st Medical Squadron, 1999).

As the existing 61 MDS is an outpatient clinic, it refers a large amount of care to the Network and other regional military providers. Over the course of Fiscal Year (FY) 1998, the clinic began to switch its referral workload from Balboa Naval Hospital (San Diego) and Camp Pendleton Medical Facility to the Network. This was done as a result of an inability to meet access standards on referrals to San Diego and the high cost of lost duty time. Care that is related to military service and/or requires high-cost procedures is still referred to the military infrastructure. However, routine care in most cases is referred to the local Network in Los Angeles, averaging around 300 active duty referrals per month.

3.2 GEOLOGY AND SOILS

3.2.1 GEOLOGY AND SEISMICITY

Los Angeles AFB is located in the Transverse Ranges geomorphic province of California.

The installation is situated within the Los Angeles Basin, a topographic lowland plain with a northwest trending axis approximately 50 miles long and 20 miles wide. The stratigraphy of the Los Angeles Basin is characterized by both unconsolidated and indurated sediments of Jurassic to Recent age. Bedrock in the vicinity consists of metamorphic rocks of the Franciscan Formation and Catalina Schist (Engineering-Science, Inc., 1998). These units are impervious and nonwater bearing and are overlain unconformably by rocks of Miocene age.

The Miocene Monterey formation consists of massive shale and claystone units. The bottom section of the Monterey exhibits coarse, pebbly sandstone and schist-bearing conglomerate. The upper units of the formation are predominantly shale and micaceous siltstone. Fine to medium grained sandstone units also occur within the upper section; however, these units are discontinuous and contain connate water with a salinity near that of seawater. The Miocene units are overlain by a Pliocene-age unit of the Pico Formation. This unit is divided into three subdivisions, based on water-bearing characteristics, and is separated by local unconformities. The Lower Division, also referred to as the Repetto Formation, consists of fine to coarse sand with pebbly, sandy siltstone and clay. The Middle Division is predominantly massive marine siltstone with lesser amounts of fine to coarse sand. Both the Lower and Middle Divisions are largely impervious and contain saline water. The Upper Division of the Pico Formation is about 1,000 feet thick and consists primarily of interbedded, semiconsolidated sand and micaceous silt, with lesser marine clay and gravel (U.S. Army Corps of Engineers, 1996).

The Pico Formation is overlain by early Pleistocene deposits forming the San Pedro Formation. The San Pedro consists of unconsolidated to semiconsolidated gravel, sand, silt and clay of marine origin, with partial influence and reworking by fluvial processes. The coarser sands and gravels are usually found in the lower two-thirds of the deposit. In the vicinity of Los Angeles AFB, lower Pleistocene deposits of the Lakewood Formation overlie the San Pedro Formation (U.S. Army Corps of Engineers, 1996).

The lower section of the Lakewood Formation is approximately 200 to 300 feet thick and consists of fluvial gravel, sand, silt and clay. The upper section of the Lakewood grades into a fossiliferous marine sand and gravel, overlain by a nonmarine silt deposit (U.S. Army Corps of Engineers, 1996).

These deposits are overlain by a late Pleistocene quartz dune sand. This deposit is mapped as the Older Dune Sand and consists of fine to medium grained sands with minor amounts of gravel, sandy silt, and clay. The Older Dune Sand is up to 200 feet thick and exhibits thin, irregular, relatively dense, cemented layers near the surface (U.S. Army Corps of Engineers, 1996).

The youngest deposits underlying Los Angeles AFB are the recent alluvial deposits, which consist of interbedded fine to coarse sands and silty sands, with lenses of sandy clay. The deposits are up to 200 feet thick and exhibit thin beds that are relatively densely cemented. The clay lenses are discontinuous and range in thickness from approximately 2 inches to 5 feet (U.S. Army Corps of Engineers, 1996) (see Figure 4).

Located in city of El Segundo (City), Los Angeles AFB is in a region of historic seismic activity. Active faults known to exist in the vicinity include the San Andreas, Newport-Inglewood, San Fernando, Sierra Madre, and Verdugo Faults (City of El Segundo, 1992). However, there are no Alquist-Priolo Study Zones within the city of El Segundo (Ursu, 1999). Certain areas of El Segundo with high ground water tables underlain by sand dune formations have a high potential for liquefaction. These areas parallel the coastline in the extreme western portion of the City along Vista Del Mar, and in the eastern portion, generally from Aviation Boulevard northwest to Imperial Highway just west of Sepulveda Boulevard. Liquefaction of soils during an earthquake can cause severe damage due to ground and/or slope failure (City of El Segundo, 1992).

Earthquake-induced flooding is not a risk at Los Angeles AFB as there are no major dams or waterways near the City (City of El Segundo, 1992).

3.2.2 SOILS

Subsurface soils at Los Angeles AFB include silty fine sand from ground surface to approximately 5 feet clayey sand to approximately 10 feet. Fill material was found overlying the natural soil at depths of 2 feet. At 10 feet and below, silty fine sand was the predominant soil type.

Lithologies logs from 11 ground water monitoring wells installed on Los Angeles AFB in 1998 (Law Crandall, 1998) indicated that underlying soils consist primarily of sands, silty sand, silty clays and clayey sands (Law Crandall, 1998). The materials are unconsolidated, dense, and noncemented (U.S. Air Force, 1998c).

Based on a Phase I assessment and subsequent subsurface survey conducted at the site of the new Medical Clinic in 1998, as well as at adjacent portions of Area B, soils show evidence of past site uses. There is some evidence of soil contamination at the site, as well as at adjacent portions of Area B. Petroleum hydrocarbons, VOCs and SVOCs detected in soil samples were consistent with past operations at the site. The highest concentration for a reported constituent was 322 mg/kg of total petroleum hydrocarbons (TPH) (as kerosene/jet fuel). Laboratory results suggest that the affected soils are generally within 5 feet of the surface, and it is possible that areas of contamination could be encountered during grading (Law Crandall, 1998).

3.3 WATER RESOURCES

3.3.1 GROUND WATER

There are four formations that contain ground water aquifers underlying Los Angeles AFB. The basal units consist of the Monterey and Pico Formations which reportedly contain connate ground water with a high salinity content (Martin Marietta, 1998).

The overlying San Pedro Formation contains one productive, potable aquifer system, the Silverado aquifer. The uppermost consolidated unit is the Lakewood Formation, with one productive, potable aquifer system, the Gage aquifer. Overlying the Lakewood formation are unconsolidated Pleistocene to Recent dune sands and alluvial units that reportedly contain localized semiperched aquifers (Martin Marietta, 1998) (see Figure 5).

The shallowest ground water occurrence at Los Angeles AFB is in a localized semiperched system in the basal section of the alluvial deposits. This aquifer is separated from the underlying potable ground water sources by an impervious confining layer. Hydrogeologic data from onsite wells indicate that the depth to water is between 90 and 95 feet below ground surface, with a gradient sloping to the west/northwest. The ground water in this system is reportedly not used as a potable, industrial, or municipal source because of its limited supply (U.S. Army Corps of Engineers, 1996).

The Gage Aquifer, which begins at about 120 feet below ground surface, is the first potable aquifer in the area. However, there are no potable water supply wells located onsite. The direction of ground water flow is to the west, toward the Pacific Ocean in the shallowest aquifer system and to the east in the lower Gage, Lynwood and Silverado Aquifers.

3.3.2 SURFACE WATER

There are no surface waters on Area A or Area B of Los Angeles AFB. Most surface infiltration is restricted because the surface is mostly paved. As a result, surface drainage enters the storm sewer system. Stormwater run-off from Area B of Los Angeles AFB, and specifically from the project area, is collected in open catch basins and routed through a system of vitrified clay, cast iron, or reinforced concrete pipes to the Los Angeles County Flood Control District storm drainage system. Due to the extensive paved areas at Los Angeles AFB, all rainfall (minus evaporation) leaves the installation in the form of stormwater run-off. Little infiltration of rainfall is expected.

3.4 BIOLOGICAL RESOURCES

As a result of the urban setting and associated lack of available habitat, few wildlife species occur on Los Angeles AFB. Various urban bird species, however, forage in the trees and potted plants on Areas A and B, and common rodents (e.g., mice) live on the base. No threatened or endangered species are known to be present (Martin Marietta, 1988).

3.5 CLIMATE AND AIR QUALITY

Los Angeles AFB is located in a coastal area that has a mild climate with temperatures moderated by the Pacific Ocean. The average monthly temperature ranges from a low of 56 degrees Fahrenheit (° F) in January to a high of 70° F in August. The annual average rainfall is approximately 12 inches per year, occurring primarily in the winter months (November through March). The 1-year, 24-hour rainfall event is 3 inches. This indicates a moderate potential for run-off and erosion. However, because a majority of the installation is asphalt-paved and contains stormwater drainage systems, any significant potential for flooding and soil erosion is eliminated (Martin Marietta Energy Systems, Inc., 1998).

Los Angeles AFB is located in the western portion of the South Coast Air Basin (SCAB). The climate of the region is generally classified as Mediterranean, with warm summers, mild weather, infrequent rainfall, and moderate humidity. The SCAB is a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean in the southwest quadrant, with high mountains forming the remainder of the perimeter. The general region lies in the semipermanent high-pressure zone of the eastern Pacific. This usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter showers, or Santa Ana winds.

The vertical dispersion of air pollutants in the SCAB is limited by the presence of a persistent temperature inversion in the lower atmosphere. The height of the inversion base is closely related to mixing height (the height above the ground in the atmosphere at which rising warm air from the surface will mix by convection). The mixed layer dilutes pollutants released in it; the degree of mixing is determined by local atmospheric conditions, terrain configuration, and source location. Restricted maximum mixing heights (3,500 feet above MSL or less) average 191 days each year in the SCAB.

The SCAB and Los Angeles AFB are located in the Metropolitan Los Angeles Air Quality Control Region (AQCR No. 24), under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The SCAB is designated by the United States Environmental Protection Agency (EPA) as attainment for sulfur dioxide (SO₂), nonattainment for nitrogen dioxide (NO₂), serious nonattainment for carbon dioxide (CO) and particulate matter (aerodiameter less than 10 microns [PM₁₀]), and extreme nonattainment for ozone (O₃). The Code of Federal Regulations does not include lead (Pb) designations for California (40 CFR, Section 81.3051).

Relative to California Ambient Air Quality Standards, the California Air Resources Board (ARB) has designated the SCAB as nonattainment for NO₂, O₃, and sulfates. SCAB is nonattainment for CO (except in Riverside and San Bernardino counties) and attainment for SO₂ and Pb. SCAB is unclassified for hydrogen sulfide. Designations for vinyl chloride have not been promulgated by the ARB.

3.6 NOISE

Principal noise sources in the vicinity of Los Angeles AFB are vehicular traffic on I-405 and major adjacent, arterial streets, including Aviation Boulevard and El Segundo Boulevard. Noise levels decrease with distance from the roadways. A secondary noise source is aircraft traffic associated with Los Angeles International Airport, approximately 1.5 miles north of Los Angeles AFB.

3.7 TRAFFIC AND TRANSPORTATION

Regional access to Los Angeles AFB is provided by I-405. The Proposed Action is located on Area B of the base, at the intersection of Aviation and El Segundo Boulevards, shown in Figure 2. Aviation Boulevard is a two-way, four-lane, north/south arterial. El Segundo Boulevard is a four-lane east/west arterial and provides access to I-405. The El Segundo/Aviation

Boulevard intersection and surrounding roads operate above capacity only during morning and afternoon peak hours, as do most major freeways and arterials in the region. I-405 operates at above capacity on a daily basis (U.S. Air Force, 1994).

Table 1 shows peak traffic volumes on streets that provide access to Los Angeles AFB. As shown, peak morning volumes generally occur between 7:15 and 7:45 a.m., with peak afternoon volumes ranging from 3:30 until 5:30 p.m. The exception is El Segundo, which has heavy eastbound traffic at 11:00 a.m. and heavy westbound traffic between 12:15 and 12:30 p.m. Douglas Street is one-way northbound, providing access/egress on the west side of Los Angeles AFB, with peak traffic volumes at 7:30 a.m. and 3:30 p.m. (City of El Segundo, 1999).

TABLE 1
PEAK TRAFFIC IN VICINITY OF LOS ANGELES AFB

STREET	PEAK A.M.		PEAK P.M.	
	Hour	Vehicle Volume	Hour	Vehicle Volume
Northbound Douglas Street (between Mariposa and El Segundo)	7:30	888	3:30	650
Eastbound El Segundo Boulevard (E/O Douglas Street)	11:00	1,101	5:00	2,133
Westbound El Segundo Boulevard (E/O Douglas Street)	7:15	2,477	12:30	1,384
Eastbound El Segundo Boulevard (E/O Aviation Boulevard)	11:00	1,110	4:45	2,092
Westbound El Segundo Boulevard (E/O Aviation Boulevard)	7:15	2,607	12:15	1,375
Southbound Aviation Boulevard (S/O El Segundo Boulevard)	7:30	1,026	5:30	1,596
Northbound Aviation Boulevard (S/O El Segundo Boulevard)	7:45	1,160	4:30	942

Source: City of El Segundo, 1999.

Access to Los Angeles AFB Area B is by two gates (Gates 4 and 5) during normal business hours and a single gate (Gate 5) at other times. Gate 4 on Aviation Boulevard and Gate 5 on Douglas Street are both north of El Segundo Boulevard. The Aviation Boulevard gate is open during normal work hours Monday through Friday, and is manned by security personnel. The Douglas Street gate is open 24 hours per day/7 days a week and also is manned by security personnel on a 24-hour-per-day basis. These gates are open for authorized access only.

Traffic congestion in the area of Los Angeles AFB occurs during the morning and evening peak hours. The congestion of most concern is in the evening period when traffic queues on eastbound El Segundo Boulevard, waiting for signaled access to I-405. This traffic occasionally backs up to the main gate of Area A, affecting traffic flow out of that gate.

A public transportation network that includes regional and local public mass transit (buses, commuter trains and light rail) serves Los Angeles County. Immediate public transit access to Los Angeles AFB is by bus only.

3.8 WASTE MANAGEMENT AND DISPOSAL

Local private contractors collect and dispose solid waste generated at Los Angeles AFB. The nearest major landfill to Los Angeles AFB is Puente Hills, owned and operated by the Los Angeles County Sanitation District. It currently receives 12,000 tons per day of municipal solid waste.

3.9 SOCIOECONOMICS

Los Angeles AFB is in the South Bay area of Los Angeles County and is served by five surrounding communities: El Segundo, Hawthorne, Lawndale, Manhattan Beach and Redondo Beach. From 1980 to 1990, this five-city area grew by 13 percent, with the population increasing from 182,303 to 206,133 (U.S. Air Force, 1994). A large proportion of the employment in the South Bay Cities is concentrated in the aerospace and electronics industries (U.S. Air Force, 1994). The current Los Angeles AFB employment is estimated at 3,350 (Donald, 1999). Thirty-seven percent of the employees are military, and the remainder are civilian.

Within the Los Angeles Basin, including the Long Beach area, there are approximately 3,753 eligible Active Duty Members, 6,744 eligible Active Duty Family Members, and 15,504 eligible Retirees/Retiree Family Members/other beneficiaries (61st Medical Squadron, 1999). As of October 1999, 6,369 beneficiaries had enrolled with the 61 MDS as their PCM (Hopper, 1999). There are 600 additional active duty members requiring registration in DEERS with the 61 MDS as their PCM.

According to current projections of the Managed Care Forecasting and Analysis System, there are 22,421 eligible beneficiaries within a 20-mile radius of Los Angeles AFB. Additionally, data for

OLA Region Nine support a projection of 3,500 Active Duty members and 7,500 Active Duty Family Members in the 20- to 50-mile range (some of which are already enrolled) (61st Medical Squadron, 1999).

3.10 CULTURAL RESOURCES

The original Area A and Area B buildings at Los Angeles AFB were constructed between 1957 and 1959. They evolved as a result of several USAF organizational changes during the last four decades and are associated with the Cold War and Man in Space themes. However, because of their administrative functions, they are not regarded as contributing features (U.S. Air Force, 1999). Therefore, there are no known cultural resources at Los Angeles AFB.

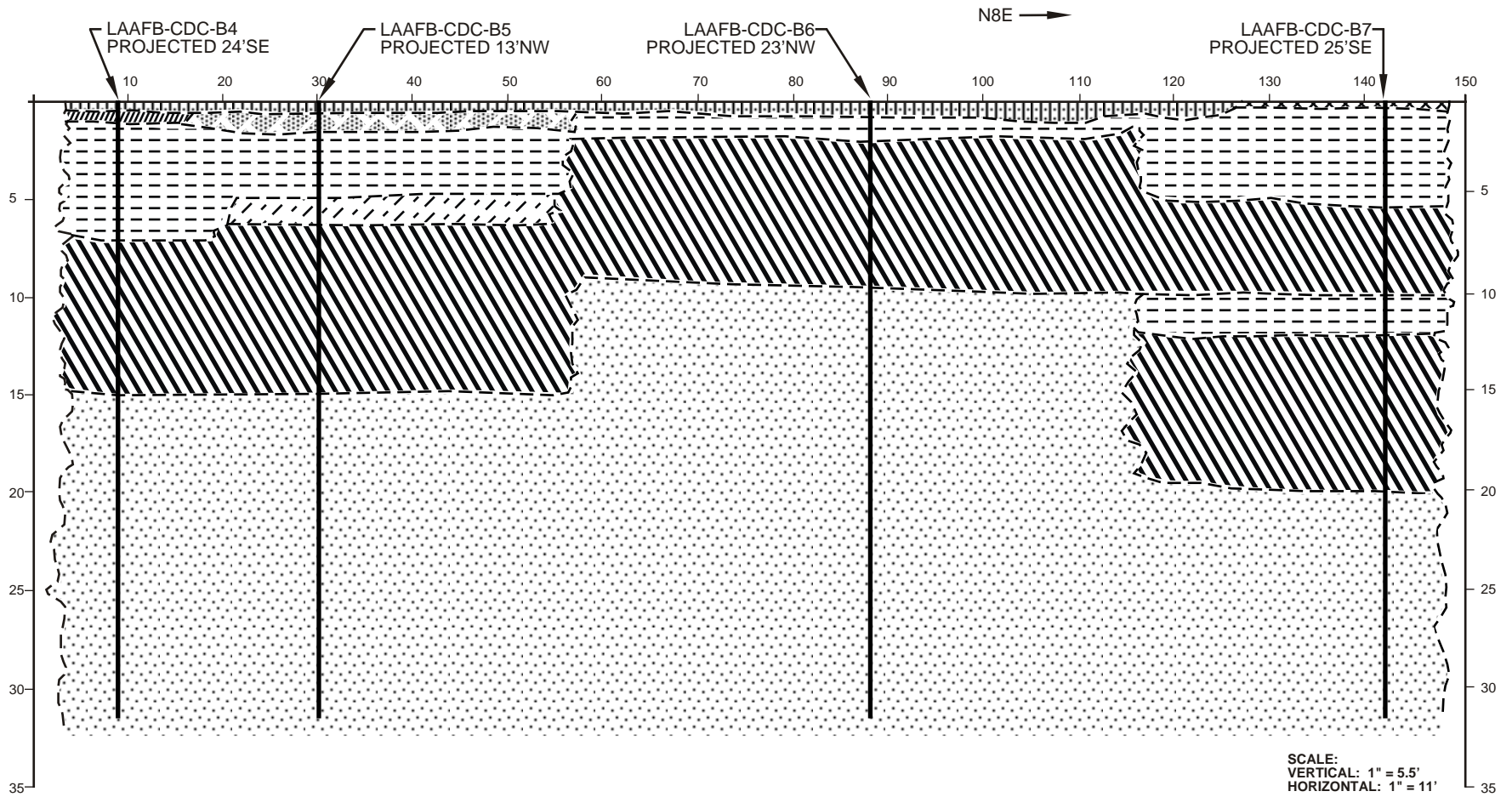
3.11 INFRASTRUCTURE

Water. Los Angeles AFB, Area B, receives drinking water from Metropolitan Water District of Southern California (MWD) through a purchasing agreement. The MWD imports water from two sources: a 242-mile-long aqueduct that brings Colorado River water from Lake Havasu to Southern California, and a 444-mile-long aqueduct that carries water from the Sacramento-San Joaquin Delta to State Water project contractors throughout California. Los Angeles AFB, Area A and Lawndale Annex purchase drinking water from the Southern California Water Company (SCWC). The water comes from two sources: surface water is from lakes and rivers, and ground water is pumped from the company's 260 wells.

Wastewater. Wastewater treatment for Los Angeles AFB is provided by the Los Angeles County Sanitation Districts. This is a consortium of 27 separate districts providing sewage collection, treatment and disposal over a 600-square-mile area and serving approximately 4 million people.

Electricity. Southern California Edison provides electricity for Los Angeles AFB.

Natural Gas. The Southern California Gas Company provides natural gas service to Los Angeles AFB.



SCALE:
VERTICAL: 1" = 5.5'
HORIZONTAL: 1" = 11'

LEGEND

- 1/2" ASPHALT OVERLYING
- 8" CONCRETE
- CONCRETE
- LEAN CLAY
- LEAN CLAY WITH SAND
- SANDY LEAN CLAY
- CLAYEY SAND
- SILTY SAND
- POORLY GRADED SAND WITH SILT

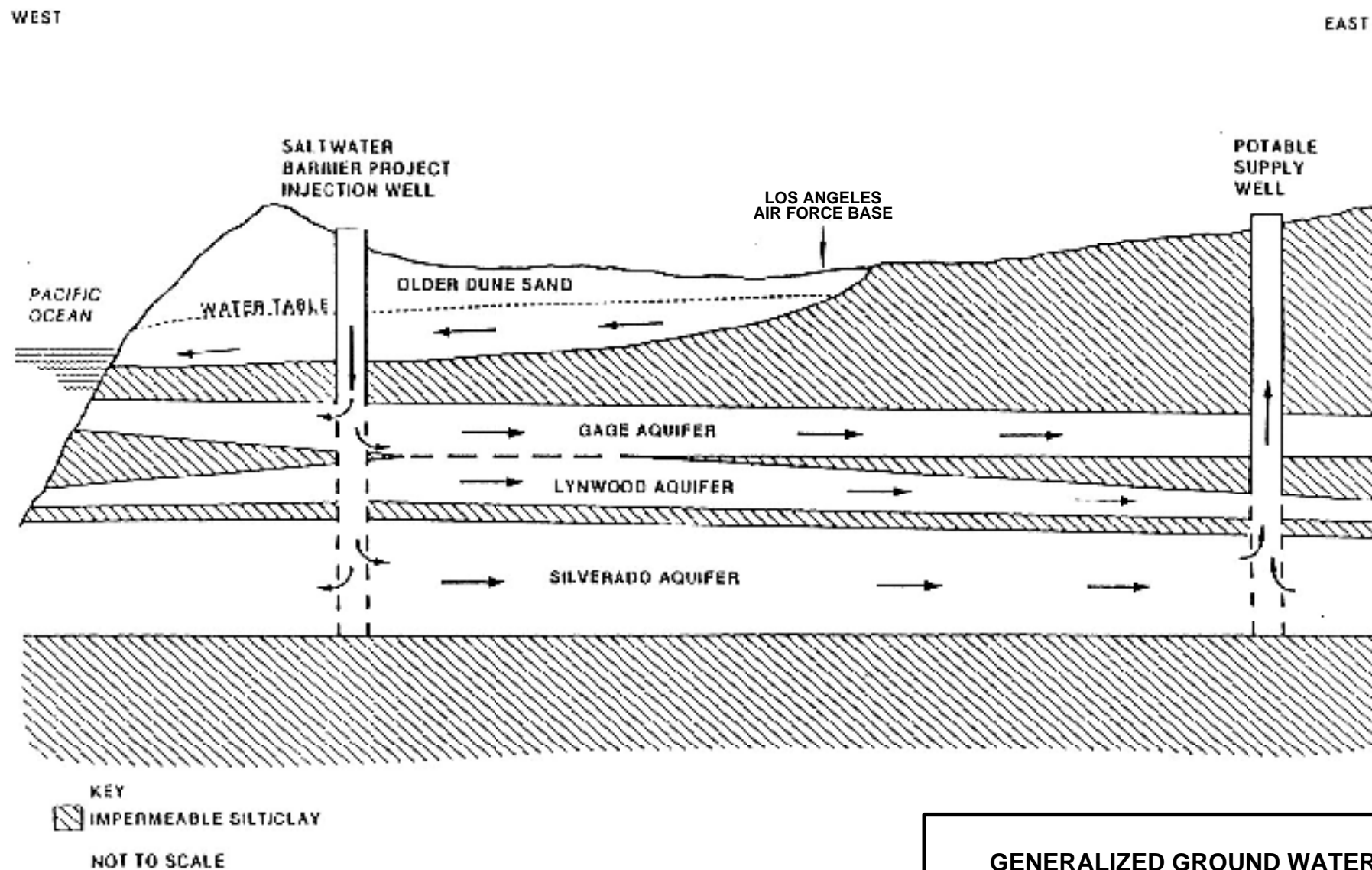
SOURCE: U.S. AIR FORCE INSTALLATION RESTORATION PROGRAM.
APRIL 17, 1998.

**GENERALIZED GEOLOGIC
CROSS SECTION**

DEPARTMENT OF THE AIR FORCE
LOS ANGELES AFB

TRC

FIGURE 4



**GENERALIZED GROUND WATER
FLOW DIRECTION IN VICINITY
OF LOS ANGELES AFB**

DEPARTMENT OF THE AIR FORCE
LOS ANGELES AFB

TRC

FIGURE 5

4.0 ENVIRONMENTAL CONSEQUENCES AND CUMULATIVE IMPACTS

4.1 INTRODUCTION

This chapter describes the potential environmental impacts that could occur under the Proposed Action and the No Action Alternative. As discussed in Section 1.5, there are four potential issues associated with demolition and construction activities for the Proposed Action that require some mitigation. These are soils, air quality, traffic/transportation and waste disposal. Other potential environmental issues will not be affected. All are discussed in the following sections.

4.2 GEOLOGY AND SOILS

Because of its location in the Los Angeles Basin of Southern California, the Los Angeles AFB is subject to groundshaking from seismic activity. The new medical clinic will be designed to standards for Seismic Zone 4 to assure the structure will withstand ground movement.

Based on current grading plans and a review of a previous geotechnical report, the USAF understands that the proposed building footings can be established in the underlying undisturbed natural soils and/or properly compacted fill soils. The thickness of existing fill soils ranges from approximately 1 to 5 feet across the site. Some areas of deeper fill may be present. It is estimated that approximately 3 feet of fill soils will be excavated during rough grading activities to provide proper support for the proposed building and parking lot (Law Crandall, 1998).

During grading, areas of subsurface soil contamination from previous uses of the site may be present after the removal of existing fill soils. Based on an estimated average depth of 3 feet of fill soils that will require overexcavation and recompaction over the 5-acre site, and an assumption that 30 percent of the overexcavated soil may be contaminated, approximately 7,500 cubic yards of potential contaminated soil could require offsite disposal or recycling. Further investigation may be necessary to document the vertical extent of the contamination at the site (Law Crandall, 1998).

Potential cumulative impacts during construction of the Proposed Action would be related to disposal of surface soils contaminated by petroleum hydrocarbons from previous underground fuel storage tanks. As discussed above, an estimated 7,500 cubic yards could potentially require disposal at a permitted offsite disposal or recycling facility. This small amount of material would not be significant to the receiving facility.

Based on the similarity of function and location for the new medical clinic compared to the existing one, operation of the Proposed Action will not result in cumulative impacts to Geology and Soils.

Mitigation Measures: In the event soils disposal or recycling is required, the contaminated soil will be transported by a licensed hauler to a disposal or recycling facility that is permitted to accept such material. Also, the construction contractor will be responsible for developing and implementing a site-specific Workplan/Health and Safety Plan to address safety issues associated with encountering contaminated soils during site grading (Law Crandall, 1998).

4.3 WATER RESOURCES

The Proposed Action will not result in impacts to surface or ground water resources. Most of the existing site surface is impervious, with structures surrounded by asphalt and concrete paving and parking areas. The Proposed Action will also provide structures and asphalt parking areas. This will maintain the existing barrier to subsurface water resources.

Surface water will not be affected, as existing drainage patterns will be maintained, with drainage to the local stormwater system. The Proposed Action will include designed surface drainage. As a result, neither the volume nor flow of onsite water will be affected.

Based on the similarity of function and location for the new medical clinic compared to the existing one, operation of the Proposed Action will not result in cumulative impacts to Water Resources.

No mitigation measures are necessary.

4.4 BIOLOGICAL RESOURCES

The Los Angeles AFB and medical clinic site provide minimal habitat, consisting almost exclusively of buildings surrounded by concrete and asphalt parking and driving areas. There are no sensitive species at this urban industrial location (Martin Marietta, 1988). The Proposed Action will replace existing structures and parking areas with new ones. Landscaping will be provided as part of the project. Impacts to biological resources will not occur.

Based on the similarity of function and location for the new medical clinic compared to the existing one, operation of the Proposed Action will not result in cumulative impacts to Biological Resources.

No mitigation measures are necessary.

4.5 CLIMATE AND AIR QUALITY

The Federal Clean Air Act requires that federal actions conform to the appropriate State Implementation Plan (SIP). Conformity, as defined in the Clean Air Act, as amended in 1990, means conformity to the SIP's purpose of eliminating or reducing the severity and number of violations of the National Ambient Air Quality Standards and achieving expeditious attainment of such standards. The EPA has published criteria and procedures governing the determination of conformity for all federal actions (Federal Register, 1993). A formal conformity determination is required for federal actions occurring in nonattainment areas when the total direct and indirect emissions of nonattainment pollutants (or their precursors) exceed specified annual de minimis (threshold) values. As addressed below, the Proposed Action does not result in threshold values being exceeded. Therefore, the Proposed Action is in conformance with the California SIP and the Clean Air Act, as amended in 1990.

The CEQA Air Quality Handbook (Tables 6-2, 6-3; SCAQMD, 1993) contains screening tables that provide a basis for preliminary assessments as to the potential for significant air quality impacts. The screening table for construction is based on quarterly thresholds. For a medical office, there could be a potentially significant impact for a facility with a gross floor area of 559,000 square feet. The screening table for operation is based on daily thresholds. For a clinic, there could be a potentially significant impact; for a facility with a gross floor area of 94,000 square feet. Because the Proposed Action will be a medical clinic of only 48,000 square feet, it does not meet SCAQMD screening criteria for either construction or operation.

Potential air quality impacts associated with the Proposed Action would result primarily from construction-related demolition and grading activities, plus vehicular emissions. These air emissions are summarized in Table 2 and shown in detail in Appendix A. Demolition of existing structures would occur over two periods of about 6 weeks each. First, existing structures will be demolished in the area of the new clinic. After activities are transferred from the existing facility to the new clinic, then the existing clinic and associated buildings will be demolished, and the new parking area will be constructed. As a result, the two periods of demolition will occur in two different calendar years and will be more than 12 months apart. Construction activities for the new clinic and parking area also will occur in two different calendar years and will be more than 12 months apart. As a result, air emissions will occur over approximately one-half of the site at any one time. This is reflected in Table 2 and Appendix A.

TABLE 2

CONSTRUCTION EMISSIONS SUMMARY

NEW MEDICAL CLINIC, LOS ANGELES AFB

SOURCE	NO _x	ROG	PM ₁₀	SO _x	CO
	Quarter ⁽¹⁾ (tons/qtr)	Quarter ⁽¹⁾ (tons/qtr)	Quarter ⁽¹⁾ (tons/qtr)	Quarter ⁽¹⁾ (tons/qtr)	Quarter ⁽¹⁾ (tons/qtr)
Demolition	0.48	0.048	0.01	0.032	0.17
Construction	0.64	0.046	0.02	0.055	0.52
Fugitive Dust ⁽²⁾	--	--	0.72	--	--
Total Emissions	1.12	0.094	0.75	0.087	0.69
Significance Thresholds ⁽³⁾	2.5	2.5	6.75	6.75	24.75

Basis of Analysis:

g lot exterior demolition occurs over 3 months (60 working days). Each piece of heavy-duty construction equipment will operate for 20 days. Other equipment will be in use for the whole period.

Building/parking lot exterior construction occurs over 6 months (130 working days). Each piece of heavy-duty construction equipment will operate for 20 days. Other equipment will be in use for the whole period.

(1) A quarter has 65 working days.

(2) Demolition and construction.

(3) SCAQMD, 1993.

-- = Not Applicable

As shown, air emissions of criteria pollutants during both demolition and construction activities are below a level of significance. Further, the Proposed Action will not result in an overall increase in traffic in the greater Los Angeles area.

Project activities are anticipated to result in the same number of vehicle trips per day that now occur. Clinic staff is expected to decrease from the existing 123 to 120. Further, the patient load is expected to remain the same or show only a slight increase (Tate, 1999). As a result of these factors, vehicle trips to and from the new medical clinic would be approximately the same as now occur. Further, patient trips already occur in the region, as persons use existing medical, private or military facilities. As a result, on a regional basis, construction and operation of the Proposed Action would not result in an increase in vehicular air emissions and there would be no impact to air quality.

As shown in Table 2 and Appendix A, the SCAQMD has established significance thresholds derived from factors of quantity of emissions over time. If the air quality impacts from an action would be less than the established significance thresholds then, by definition, they would not have a significant impact. Emissions from activities associated with the Proposed Action are

below the established SCAQMD thresholds. As a result, the Proposed Action will not result in significant air quality impacts.

Potential cumulative impacts during construction of the Proposed Action will be from construction-related emissions. As shown in Table 2 and Appendix A, these emissions will be temporary and will not be significant.

Based on the similarity of function and location for the new medical clinic compared to the existing one, operation of the Proposed Action will not result in cumulative impacts to Climate and Air Quality.

Mitigation Measures: Mitigation measures are not required. However, to assure minimal impact, during demolition and construction activities, contractors will adhere to standards of good practice, including use of a water truck for dust control. Further, construction deliveries and transport of demolition debris will be scheduled during off-peak hours.

4.6 NOISE

The Proposed Action will consist of periods of demolition and construction, which will produce noise typical of such activities. This noise may be discernible at the existing clinic, child care and child development buildings, and other nearby structures. However, due to noise from surrounding roads and aircraft noise from Los Angeles International Airport, the existing environment consists of ongoing background noise. As a result, noise from demolition and construction will be additive rather than unique. It also will be temporary. As a result, impacts would not be significant.

Based on the similarity of function and location for the new medical clinic compared to the existing one, operation of the Proposed Action will not result in cumulative impacts to Noise.

No mitigation measures are required.

4.7 TRAFFIC AND TRANSPORTATION

During demolition and construction activities, there will be limited traffic to deliver materials and haul debris offsite for disposal. There also will be vehicular traffic as construction workers arrive and depart. Based on peak daily traffic for the major thoroughfares that provide access to Los Angeles AFB, impacts from construction-related vehicle trips will not be significant.

During operation, the Proposed Action is not expected to generate additional daily vehicle trips per day to and from Los Angeles AFB. Since the Navy closed its medical facility in Long Beach, military personnel already go to Los Angeles AFB for medical services. Further, most people will use the new facility during off-peak hours, minimizing the contribution to that traffic. Also, clinic staff will remain virtually the same as with the existing facility. As a result, traffic impacts will not result in significant increases to existing daily traffic to and from Los Angeles AFB. In addition, any increase in commuters utilizing public transportation as a result of the Proposed Action would be negligible.

Based on the similarity of function and location for the new medical clinic compared to the existing one, operation of the Proposed Action will not result in cumulative impacts to Traffic and Transportation.

Mitigation Measures: Construction deliveries will be scheduled during off-peak traffic hours. Also, demolition debris will be transported from the site during off-peak hours.

4.8 WASTE MANAGEMENT AND DISPOSAL

Asbestos. A preliminary survey of the buildings to be demolished as part of the Proposed Action determined that asbestos-containing materials are present. Due to the nature of building demolitions, a detailed asbestos survey of the facilities under consideration will need to be completed. As demolition is expected to disturb asbestos-containing material, the engineer/designer and construction/demolition contractor shall develop a project-specific asbestos demolition and abatement program. Asbestos waste will be disposed of only at appropriately permitted facilities, in accordance with federal, state and local laws. Therefore, no significant impacts from demolition and/or removal of asbestos-containing material are expected.

Lead-Based Paint. Lead-based paint is expected in buildings planned for demolition, as the buildings were constructed before the DoD ban of this material in 1978. As appropriate, materials containing lead-based paint will be transported to an appropriately permitted disposal facility. Therefore, no significant impacts are expected.

Potential cumulative impacts during construction of the Proposed Action would be related to demolition and disposal of building materials containing asbestos and lead-based paint. Based on

the mitigation measures that shall be employed and the small amount of these materials that will be transported for disposal, cumulative impacts will not be significant.

Based on the similarity of function and location for the new medical clinic compared to the existing one, operation of the Proposed Action will not result in cumulative impacts to Waste Management and Disposal.

Mitigation Measures. Contractors will conduct an asbestos survey of facilities to be demolished and will develop a project-specific asbestos demolition and abatement program. Asbestos abatement will be completed in compliance with applicable federal, state and local regulations. Procedures will be designed to accommodate site conditions and adjacent land uses, including the Los Angeles AFB day care center and child development center. Licensed haulers will transport the asbestos-containing waste to an appropriately permitted facility, in accordance with federal, state and local regulations.

Contractors will develop a project-specific program for demolition and abatement of materials that contain lead-based paint. Demolition and disposal of materials containing lead-based paint will be in accordance with federal, state and local regulations. Appropriately licensed haulers will transport waste materials to an appropriately permitted facility.

4.9 SOCIOECONOMICS

A realistic Maximum Achievable Enrollment for the new medical facility at Los Angeles AFB is 8,100 enrollees (Hopper, 1999). At the beginning of FY 98, 4,000 were enrolled. By the end of the second quarter of FY 99, it is projected that 6,500 will be enrolled.

With the Proposed Action, maximum clinic enrollment is expected to be approximately 11,000 (Hopper, 1999). However, the current load of 3,100 patients per month (141 per day) is expected to remain the same or show only a slight increase (Tate, 1999). The pharmacy currently fills 8,100 prescriptions per month, which is expected to increase 20 percent, to approximately 9,700 prescriptions per month. The existing staff at the medical clinic of 123 personnel is expected to decrease to 120 for the new medical clinic (Tate, 1999). As a result, approximately three staff personnel will be transferred to other assignments within Los Angeles AFB. As a result of maintaining the current level of staff and patient load, impacts related to socioeconomics will not be significant.

Based on the similarity of function and location for the new medical clinic compared to the existing one, operation of the Proposed Action will not result in cumulative impacts to Socioeconomics.

No mitigation measures are required.

4.10 CULTURAL RESOURCES

Area B buildings are not considered eligible for the National Register of Historic Places, as discussed in Section 3.10. Consequently, there would be no historic resources impacts associated with the Proposed Action.

Based on the similarity of function and location for the new medical clinic compared to the existing one, operation of the Proposed Action will not result in cumulative impacts to Cultural Resources.

No mitigation measures are required.

4.11 INFRASTRUCTURE

With the Proposed Action, 1,600 additional persons would be enrolled to utilize the medical clinic at Los Angeles AFB, representing an increase of 20 percent from current levels (61st Medical Squadron, 1999). However, patient loads are expected to remain at current levels or experience only a slight increase, and clinic staff would decrease by approximately three persons (Tate, 1999). As a result, there will not be an increase in demand to the Base or suppliers' utility capacities. The Proposed Action will not result in significant impacts on water, wastewater, solid waste, electric, or natural gas utility systems.

Based on the similarity of function and location for the new medical clinic compared to the existing one, operation of the Proposed Action will not result in cumulative impacts to the infrastructure of Los Angeles AFB, City of El Segundo or other supplier.

No mitigation measures are required.

4.12 NO-ACTION ALTERNATIVE

If the No-Action Alternative were implemented, the existing Medical Clinic and other buildings at Area B would continue in their current uses. Current activities would continue with no change in operations. No temporary change in air emissions would occur. No additional asbestos-containing materials or lead-based paint would be disposed of in existing permitted disposal facilities.

Under this alternative, health care operations will continue to be spread out in various buildings at Area B and medical services would become increasingly inefficient. As a result, patient satisfaction could decrease and TRICARE Prime enrollees could be lost.

5.0 REGULATORY REVIEW AND PERMIT REQUIREMENTS

As discussed in Chapter 2.0, the new medical clinic will be constructed at existing DoD facilities where an existing clinic is in operation. Therefore, the establishment and operation of a medical clinic is considered to be part of the baseline environmental conditions at Los Angeles AFB, and specifically at Area B. No additional regulatory review or permits are required.

Existing air quality regulations will be adhered to during construction of the Proposed Action. During demolition of onsite buildings, it is expected that asbestos will be encountered, as this was used for insulation when the older buildings were constructed. Demolition and transport of asbestos-containing materials will be conducted in accordance with Regulation X, National Emission Standards for Hazardous Air Pollutants, Subpart M, National Emission Standard for Asbestos, as administered by the SCAQMD. The engineer/designer and construction/demolition contractor shall be required to develop a plan to provide for the safe demolition and transport of asbestos-containing materials, especially considering the proximity of Los Angeles AFB childcare facilities to the construction site.

During construction activities, construction/demolition contractors shall comply with Rule 403, Fugitive Dust (SCAQMD Regulations, Amended February 14, 1997). In accordance with this Rule, construction/demolition activities shall be conducted in a manner that shall reduce the amount of particulate matter entrained in the ambient air as a result of man-made fugitive dust sources. This includes the application of water sprays from a water truck that is onsite at all times. In the event dirt is stored onsite for future use, said dirt pile shall be covered.

Construction and/or demolition contractors shall be required to obtain applicable permits to assure compliance with regulatory requirements for construction and/or demolition activities associated with the Proposed Action. These may include, but are not limited to, permits related to:

- Air quality, from SCAQMD.
- Stormwater/surface water control, from the California Regional Water Control Board.
- Construction of new access driveway on Douglas Street, from the City of El Segundo.

6.0 PERSONS AND ORGANIZATIONS CONSULTED

The following individuals or organizations were consulted or provided information during preparation of this EA:

U.S. AIR FORCE

Captain Ron Tate

Ted Krawczyk

Peter Campbell

Max Piendo

Jim Riley

Robert Donald

61MDS/SGSL

SMC/AXFV

SMC/AXFV

SMC/AFFV

61 ABG/CEZV

Civilian - Budget Analyst

OTHERS

David Bang

Engineering Technician, City of El Segundo
Department of Public Works

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8.0 LIST OF PREPARERS

The following individuals from TRC were responsible for preparation of this EA:

- Robert Mason - Project Manager
- Carolyn Trindle - Project Engineer
- Jane Bahr - Engineer
- Ron Brugger - Engineer

APPENDIX A

LOS ANGELES AIR FORCE BASE
DEMOLITION AND CONSTRUCTION EMISSIONS

**APPENDIX A
LOS ANGELES AIR FORCE BASE
DEMOLITION AND CONSTRUCTION EMISSIONS**

Engine Emissions

SOURCE	SIZE / GROSS HP	DAILY AMOUNT ⁽¹⁾ (hrs or trips)	NUMBER OF DAYS	NUMBER OF UNITS	ONE-WAY DISTANCE (miles)	NO _x			ROG			PM ₁₀			SO _x			CO			NOTES
						EF ⁽²⁾	Daily (lbs/day)	Quarter ⁽³⁾ (tons/qr)	EF ⁽²⁾	Daily (lbs/day)	Quarter ⁽³⁾ (tons/qr)	EF ⁽²⁾	Daily (lbs/day)	Quarter ⁽³⁾ (tons/qr)	EF ⁽²⁾	Daily (lbs/day)	Quarter ⁽³⁾ (tons/qr)	EF ⁽²⁾	Daily (lbs/day)	Quarter ⁽³⁾ (tons/qr)	
Demolition																					
Excavator	84	8	20	1	-	774	14	0.14	64	1.1	0.011	13	0.23	0.002	58	1.0	0.010	79	1.4	0.014	5
Dozer	153	1	20	1	-	2386	5.3	0.053	70	0.2	0.002	60	0.13	0.0013	226	0.50	0.005	370	0.82	0.008	5
Backhoe Loader	84	1	20	1	-	774	1.7	0.017	64	0.1	0.0014	13	0.029	0.0003	58	0.13	0.0013	79	0.17	0.002	5
Haul Trucks	20 ton	10	20	-	20	11.3	10	0.10	2.2	2	0.02	0.6	0.5	0.005	0.3	0.3	0.003	14.0	12	0.12	6
Water Truck	175	10	20	1	-	774	17	0.17	64	1.4	0.014	13	0.29	0.003	58	1.3	0.013	79	1.7	0.02	5
Worker Light Truck	Light	2	60	-	5	1.0	0.04	0.0013	0.35	0.02	0.00046	0	0	0	0.06	0.0026	0.00008	7.22	0.32	0.0096	6
Maxima and Subtotals (Demolition) ⁽⁴⁾							17	0.48		1.9	0.048		0.52	0.012		1.3	0.032		12	0.17	
Construction																					
Backhoe Loader	426C	4	20	1	-	774	7	0.07	64	0.57	0.006	13	0.12	0.0012	58	0.51	0.005	79	0.69	0.007	5
Dozer	153	4	20	1	-	2386	21	0.21	70	0.62	0.006	60	0.53	0.005	226	2.0	0.020	370	3.3	0.03	5
Fork Lift - 50 HP	-	2	20	1	-	8.16	0.036	0.0004	227	1.0	0.010	1.4	0.0060	0.00006	0	0	0	6350	28	0.28	7
Crane	150 ton	4	20	1	-	576	5.08	0.05	82	0.72	0.007	64	0.56	0.0056	41	0.36	0.004	1624	14	0.14	7
Equipment Delivery Truck	Low boy	2	20	2	20	11	2.0	0.02	2.2	0.4	0.004	0.59	0.10	0.0010	0.31	0.05	0.0005	14	2.5	0.025	6
Water Truck	1,000 gal.	4	20	1	-	774	7	0.07	64	0.57	0.006	13	0.12	0.0012	58	0.51	0.005	79	0.69	0.007	5
Construction Generator	25	4	130	1	-	204	1.8	0.059	0.91	0.008	0.00026	0.82	0.0072	0.00023	0.007	0.00006	0.000002	0.036	0.00032	0.00010	7
Compactor	102	4	20	1	-	1787	16	0.16	71	0.63	0.006	67	0.59	0.006	235	2.1	0.02	128	1.1	0.011	5
Worker Light Truck	Light	2	130	1	5	1.0	0.04	0.0014	0.35	0.015	0.0005	0	0	0	0.060	0.0026	0.00009	7.2	0.32	0.010	6
Maxima and Subtotals (Construction) ⁽⁴⁾							21	0.64		1.0	0.046		0.59	0.020		2.1	0.055		28	0.52	
Subtotals, Engine Emissions							21	1.1		1.9	0.094		0.59	0.033		2.1	0.087		28	0.69	
Total Emissions (Fugitive plus engine exhaust)							21	1.1		1.9	0.094		0.59	0.75		2.1	0.087		28	0.69	
Significance Thresholds ⁽⁷⁾							100 lb/day	2.5 tons/qr		75 lb/day	2.5 tons/qr		150 lb/day	6.75 tons/qr		150 lb/day	6.75 tons/qr		550 lb/day	24.75 tons/qr	
Insignificant Impact ⁽⁸⁾							Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	

Fugitive Dust Emissions

SOURCE	DAILY AMOUNT (hours)	DAYS OF ACTIVITY	AREA OF OPERATIONS	PM ₁₀			NOTES
				EMISSIONS			
				EF	(lbs/day)	(tons/qr)	
Demolition	8	60	2.5 acres	39.4 lb/acre-day	2	0.05	
Construction	8	130	-	0.51 lb/hr	4.1	0.13	
Wind Erosion	24	190	2.5 acres	6.6 lb/acre-day	17	0.54	9
Subtotal, Fugitive Emissions					21	0.72	

Overall Assumptions:

Demolition occurs over 3 months (60 working days). Each piece of heavy-duty construction equipment will only operate for 20 days. Other equipment will be in use for the whole period.

Construction occurs over 6 months (130 working days). Each piece of heavy-duty construction equipment will only operate for 20 days. Other equipment will be in use for the whole period.

-- Not applicable

Unit abbreviations: g/hr = grams per hour, lb/day = pounds per day, tpy = tons per year, tq = tons per quarter

(1) Daily amount is measured in hours for off-road construction equipment (e.g., grader), and in number of trips for on-road vehicles (e.g., worker light-truck).

(2) Emission factors are in grams per hour for off-road equipment, and in grams per mile for on-road vehicles.

(3) A Quarter has 65 work days.

(4) Daily emissions are maxima. Major pieces of construction off-road equipment (e.g., grader, dozer) are used consecutively, not concurrently. The daily emission values shown are the single highest emission rate of those equipment.

(5) Emission factors are from Caterpillar Corp.

(6) EMFAC/G Emission Factors (1998, 15mph, 75F)

(7) SCAQMD, 1993.

(8) Emissions have insignificant impact when the total quarterly emissions do not exceed the threshold.

(9) Wind erosion occurs throughout demolition and construction.